

## Studies on the Buprestidae (Coleoptera) of Asia

### 6) A New Species of the Genus *Tokaranodicerca* from Amamiohshima Is. of the Ryukyu Archipelago

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**Abstract** A new buprestid beetle, *Tokaranodicerca shimonoi* sp. nov. is described from Amamiohshima Is. of the Ryukyus. This new species resembles *T. nishidai* (TÔYAMA, 1986) from Nakanoshima Is. of the same archipelago, but is distinguished by having U-shaped emargination at the apex of the last visible sternite in the female.

In the last year, the author removed *Dicerca nishidai* TÔYAMA (1986) from the genus *Dicerca* ESCHSCHOLTZ, 1829 and placed it in a newly established genus, *Tokaranodicerca*. This genus is characterized by the tetragonal form of the 6th to 10th antennal segments, each with densely scattered sensory pores just behind the apical socket, the prosternal process with a pair of grooves along lateral margins, and each tarsal pad wider than the tarsomere itself.

Recently, IMASAKA and SHIMONO (2004) recorded *Dicerca nishidai* from Amamiohshima Is. with some reservation. I had an opportunity to examine the specimen from Amamiohshima Is. through the courtesy of Messrs. S. IMASAKA and M. SHIMONO. After a careful examination, it became apparent that the specimen belonged to a new species of the genus *Tokaranodicerca*. It is worth noting that the new species is clearly different from *T. nishidai* though its type locality is not so widely distant from that of the latter.

Before going further, I wish to express my sincere thanks to Dr. Shûhei NOMURA of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo and to Dr. Shun-Ichi UÉNO of the same Museum for their kindness in critically reading the original manuscript and offering invaluable suggestions. I am also grateful to Mr. Shôichi IMASAKA of Fukuoka and Mr. Masayuki SHIMONO of Osaka for their kind offer of the type specimen and to Mr. M. SHIMONO for his kindly informing bionomic data of this new species.

*Tokaranodicerca shimonoi* sp. nov.

[Japanese name: Amami-kinmon-futao-tamamushi]

(Figs. 1-11)

Male. Unknown.

Female. Body vaulted, strongly attenuate posteriad, strongly convex at elytral base in lateral view; head, pronotum and prosternum sparsely covered with short semi-recumbent hairs; head and pronotum black and punctures aeneous with shimmer; elytra black, with aeneous spots and punctures; each elytron with two aeneous markings; ventral surface with punctate parts aeneous with aeneo-cupreous shimmer; antennae and legs black with bluish shimmer.

Head transverse and declivous anteriorly; vertex broad, with a linear groove in narrow median carina intermittently reaching the top of frons; frons feebly concave in the middle, reticulately punctate; clypeal suture absent; clypeus transverse, arcuately emarginate on anterior margin; each antennal cavity surrounded by elevated triangular rim, with a small supra-antennal cavity, which bears a large and semispherical tubercle at the center; dorsal surface covered with coarse punctures; each puncture with one or a few whitish semi-recumbent hairs. Eyes medium-sized and convergent dorsally. Labrum rectangular, wider than long; labium flat on anterior margin.

Antennae reaching anterior 1/3 of pronotum; 1st segment fusiform; 2nd globular; 3rd obconical; 4th and 5th each triangular; 6th to 10th each tetragonal; 7th to 10th each angulate on ventral margin; 11th oval, with almost parallel dorso-ventral margins; 4th to 10th each with a socket at ventro-apical part and densely scattered sensory pores just behind the socket on inner side; 6th to 10th each with densely scattered sensory pores at ventral part on outer side; 11th with a terminal socket and densely scattered sensory pores at ventral part on both inner and outer sides; 4th to 11th each feebly depressed around the pore scattered area.

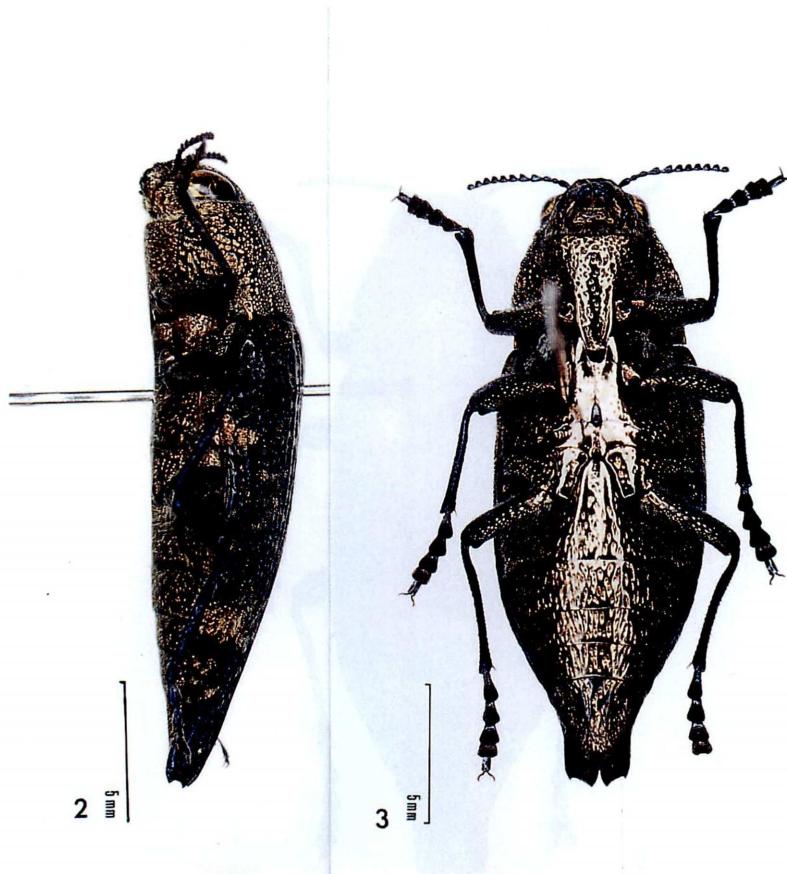
Pronotum convex and widest at base, about 1.5 times as wide as long; anterior margin 2/3 as wide as the posterior one, feebly bisinuate, with broadly produced median lobe; posterior margin bisinuate, obtusely angulate at bottom of median lobe, broadly and arcuately emarginate on each lateral part; postero-lateral angle acute; lateral sides each feebly sinuate, weakly convergent from base to basal 1/5, arcuately divergent to basal 1/3, arcuately rounded laterad around basal 1/3, then linearly convergent toward each anterior angle; anterior angles rounded in lateral view; median longitudinal costa broad and entire, 2/5 as wide as basal width of pronotum at base, with shallow longitudinal depressions at anterior and posterior parts; lateral longitudinal costae entire, located at lateral 5/8 from median line to postero-lateral angles at base; shallow transverse groove located just behind anterior margin interrupted by the broad median longitudinal costa; surface coarsely and irregularly punctate, sparsely punctate on broad median longitudinal costa, almost reticulate in lateral parts; each puncture middle-sized, with one or a few short semi-recumbent whitish hairs; ante-scutellar part transversely with two foveoles.



Fig. 1. *Tokaranodicerca shimonoi* sp. nov., ♀, holotype; dorsal view.

Scutellum small, pentagonal, as long as wide, depressed at the middle.

Elytra 3.5 times as long as pronotum, 1.2 times as wide as pronotum, 2.0 times as long as wide, widest just before the middle; each basal lobe arcuately produced along basal emargination of pronotum; humeri obtusely angulate; lateral sides feebly sinuate from humeral prominences to the widest part, then sinuously convergent toward apices; apices furcate and feebly divergent, each obliquely truncate, spinulate at outer angle, acutely angulate at mesal corner; sutural margin costate from just behind the middle to apices; lateral margins costate from just behind humeral prominences to apices; each elytron with ten carinate intervals as follows: 1st short, joining sutural margin at basal 1/5 of elytral length<sup>1)</sup>; 2nd to 8th nearly entire; 9th and 10th running

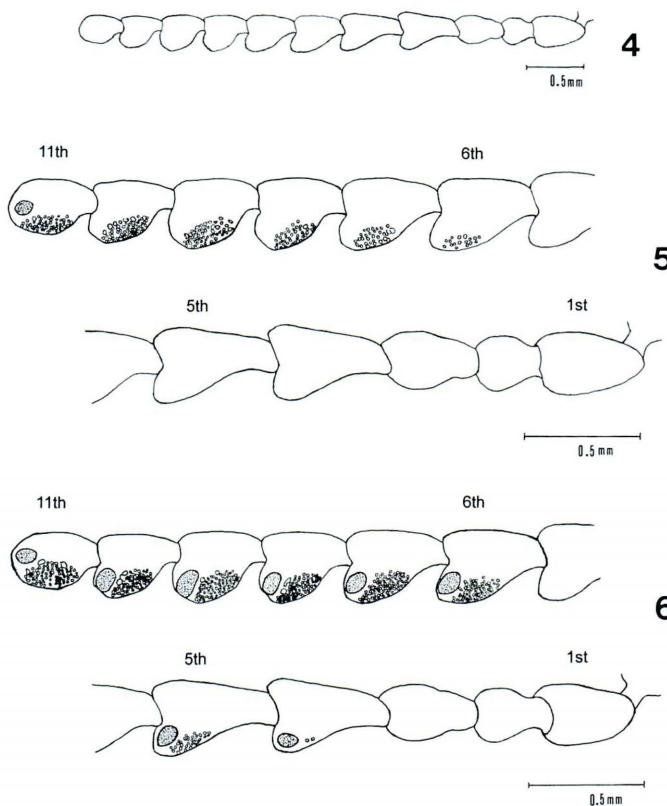


Figs. 2-3. *Tokaranodicerca shimonoi* sp. nov., ♀, holotype; 2, lateral view; 3, ventral view.

from just behind humeral prominence to apex; foveae in striae circular and confluent each other at lateral sides; surface with punctures in basal half and aeneous spots of clumps of several punctures on intervals all over, each puncture with a whitish recumbent hair; two markings arranged on each elytron as follows: small aeneo-cupreous marking across 9th and 10th intervals just behind humeral prominence with punctures bearing whitish semi-recumbent hairs; large transverse marking at apical 1/3 aeneo-cupreous across all intervals from lateral side with two or three clumps of aeneous semi-recumbent setae.

Prosternum convex, declivous from lateral sides to the middle; anterior margin very shallowly and arcuately emarginate in the middle; prosternal process planate and flattened ventrally with a pair of longitudinal grooves along lateral margins and sepa-

1) The elytral length is measured from the base of the scutellum to apices.

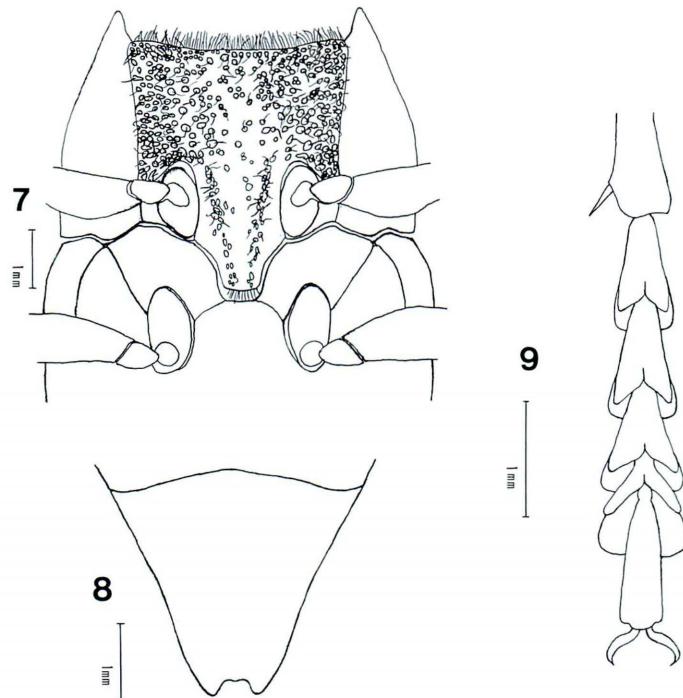


Figs. 4–6. *Tokaranodicerca shimonoi* sp. nov., ♀, holotype; 4, right antenna; 5, outer side of right antenna; 6, inner side of left antenna.

rated from each other at apex, with dense punctures in the grooves. Mesosternum divided by prosternal process. Metasternum with entire median groove and longitudinal carina in the groove behind transverse line. Metacoxae shallowly and arcuately emarginate at posterior margins.

Abdomen with first ventral sternite excavated in the middle; the last visible sternite rounded near apex, with a small U-shaped emargination at apex; surface moderately punctate on ventral side, densely punctate on lateral sides; each puncture with a whitish semi-recumbent hair.

Legs rather long, robust, clothed with whitish setae; femora each fusiform; protibiae each nearly straight, dilated externally at apex, with yellowish brushes on inner sides; mesotibiae feebly arcuate inwards; metatibiae arcuate inwards, each with short brownish bristles in apical 3/4 of outer side; each metatarsal segment rather long, with the length order 1st=2nd>3rd>4th; each tarsal pad wider than its tarsomere itself and expanded on both sides in basal three segments; in the last metatarsal pad 1.5 times as



Figs. 7–9. *Tokaranodicerca shimonoi* sp. nov., ♀, holotype; 7, prosternum; 8, last visible abdominal sternite; 9, right metatarsus.

long as the last segment; each metatarsal claw 1.5 times as long as the last metatarsal pad.

Hind wing dark brown; vein  $Rs$  separated from  $M$ ; cross vein ( $R-M$ ) visible;  $1A_3$  separated from  $2A_1$  though each vein bears a short protuberance at the root of  $1A_3$ ; pseudo- $Rs$  and pseudo- $1A$  invisible;  $1A$  relatively long in 0.33 times as long as vein  $1A_3$ .

Body length: 21.8 mm, width: 7.9 mm.

*Type specimen.* Holotype ♀, Yuwangama, Yamato-son, Amamiohshima Is., Kagoshima Pref., 28–VI–2003, M. SHIMONO leg.

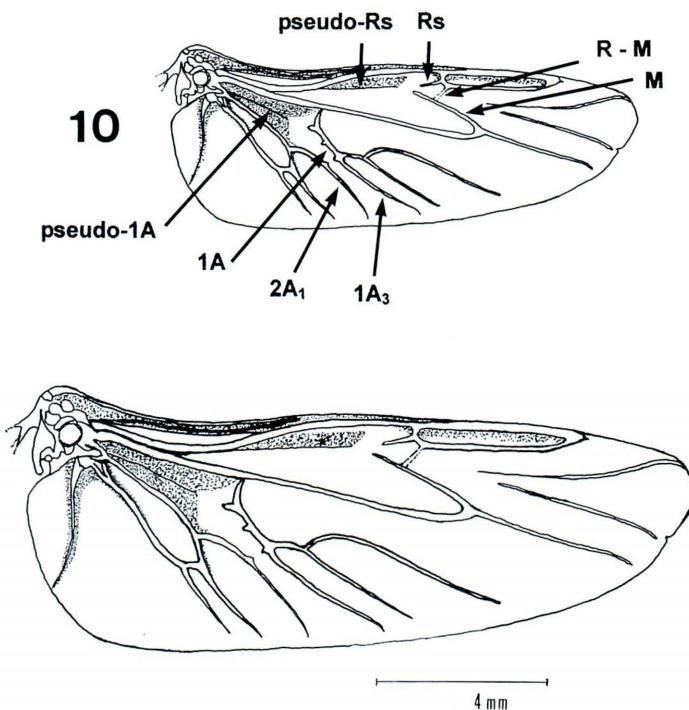
The holotype is deposited in the National Science Museum (Nat. Hist.), Tokyo.

*Host plant.* The specimen was found on an ulcer of the branch about 5 cm in diameter of a *Morus* tree, which is probably the host plant.

*Etymology.* The specific name is given after Mr. Masayuki SHIMONO who collected the type specimen of this new species.

*Remarks.* The present new species has the following diagnostic features in comparison with *T. nishidai* (Figs. 12–13):

- 1) Sixth to 10th antennal segments each tetragonal, though the 7th to 10th each



Figs. 10–11. *Tokaranodicerca shimonoi* sp. nov., ♀, holotype; venation of right hind wing.

bears obtusely angulate ventral margin, while in *T. nishidai*, 6th to 10th antennal segments each simply tetragonal.

2) Pronotum with linear lateral sides in anterior part, while the pronotum has arcuate lateral sides in the anterior part in *T. nishidai*.

3) Prosternal process with a pair of longitudinal grooves along lateral margins and separated from each other at apex, while in *T. nishidai*, the prosternal process bears a single groove along the lateral and apical margins.

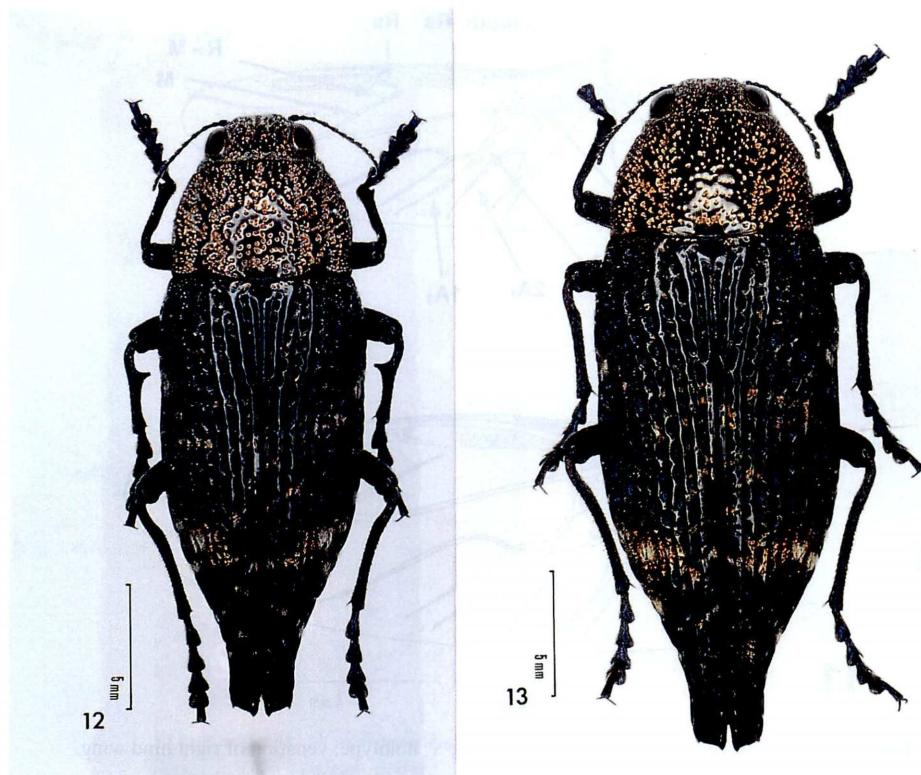
4) First abdominal sternite excavated in the middle, while it is very shallowly depressed in *T. nishidai*.

5) The last visible sternite rounded near apex, with a small U-shaped emargination at apex, while in *T. nishidai*, the last visible sternite is simply rounded at the apex.

6) Hind wing with vein  $1A_3$  separated from  $2A_1$  (in female), while in *T. nishidai*,  $1A_3$  is nearly connected with  $2A_1$  at the root of  $1A_3$  (in male).

## 要 約

服部宇春：アジアのタマムシの研究. 6) 奄美大島から発見されたキンモンフタオタマムシ属 *Tokaranodicerca* の1新種. —— トカラ列島の中之島から記録されているキンモンフタオタマム



Figs. 12–13. *Tokaranodicerca nishidai* (TŌYAMA, 1986), (12: ♂), (13: ♀); dorsal view.

シ (*Tokaranodicerca nishidai* (TŌYAMA, 1986)) に近縁な新種, アマミキンモンフタオタマムシ (*T. shimonoi* sp. nov.) を, 琉球列島の奄美大島から記載した. この新種は, 雌の腹端にU字形の切れ込みをもつことによって, 容易にキンモンフタオタマムシと区別できる. また, 本新種は, 触角に感覚孔を散布し, 各節の形状が四角形である点についてはキンモンフタオタマムシと同様であるが, 7節から10節については, 各節が下方にやや突出し, 四角形から三角形への中間段階とも見える.

### References

HATTORI, T., 1999. Studies on the Buprestidae (Coleoptera) of Asia. 3) Notes on *Dicerca corrugata* and description of its new relative. *Elytra, Tokyo*, **27**: 417–428.

——— 2004. Ditto. 5) A new genus of the tribe Psilopterini from the Tokara group of the Ryukyu Archipelago. *Ibid.*, **32**: 139–151.

IMASAKA, S., & M. SHIMONO, 2004. Record of *Dicerca nishidai*(?) from Amamiōshima Is., Kagoshima, Japan. *Gekkan-Mushi, Tokyo*, (396): 2–3. (In Japanese.)

TŌYAMA, M., 1986. A remarkable new buprestid beetle (Coleoptera, Buprestidae) from Japan. *Gekkan-Mushi, Tokyo*, (189): 18–21, pl. 1.